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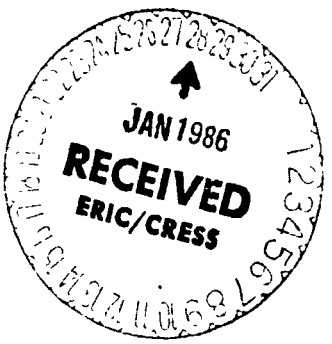
ABSTRACT

Although much that is written about rural schools focuses on economic scarcities, pressures on teachers, and limited materials, there are also distinct advantages offered to those attending school in rural areas. Small schools provide all children--including the gifted--with unique opportunities to develop intellectual, social, and creative capacities. Rural gifted students enjoy: (1) smaller class size with more likelihood of independent work; (2) a school climate of familiarity among teachers, students, principals, and community members; and (3) a school environment where there is greater opportunity for all students to participate in extracurricular activities. To assist rural schools in providing effective programs for gifted and talented students, a catalog was developed of 19 programs selected as having feasible and effective approaches for talented students in rural schools. The programs had the following characteristics: (1) responded to the unique strengths and constraints found in small, rural, and remote schools; (2) focused on the classroom teacher's needs or activities; (3) provided appropriate instructional materials for gifted students; and (4) offered at least one of three program models--acceleration, enrichment, or regular classroom activities. A chart of the 19 programs giving program name and type, curriculum areas, students served, staffing needs, and costs is appended. (JHZ)

# HIGH ACHIEVEMENT IN RURAL SCHOOLS

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## HIGH ACHIEVEMENT IN RURAL SCHOOLS

> "The conditions that concern us today--swiftly advancing technology, economic competition in a global arena, the sudden obsolescence of skills--will be even more intense tomorrow.
>
> "We must raise both the floor and the ceiling of achievement in America, improving educational attainment for the most able students and for other students as well."
>
> ...Education Commission Of The States

The time is right for rural and small schools to seek greater achievements from their most able students. For most of our history we Americans have been in love with high achievement--with excellence. But today the search for excellence is even more important. The possibility that foreign countries can outstrip us in productivity and inventiveness is suddenly troubling Americans. Across the country, towns and cities are depressingly aware of "technological unemployment"--people losing jobs because our workers and our techniques are suddenly obsolete. Rural communities are especially hard hit as rural workers face tough new demands that come from the highly technical economy which is emerging.

This has led many rural leaders to agree with the Education Commission of the States that "our future success as a nation--our national defense, our social stability and well-being, and our national prosperity--will depend on our ability to improve education...so that in the future our children will be able to meet the demands of a new era that is already upon us" (ECS, 1983). During significant economic and social changes people seek highly talented persons who can offer leadership and new ideas to face the crises. With the American public becoming focused on the development of capable leaders, we find educators asking three basic questions:

- Who has high potential for making outstanding contributions to our communities and society?
- How can we identify these high potential people and train them during their formative years?
- What types of school environments and activities nurture their potential into productive leadership?

A review of the research on leadership reveals that biographies offer some of the best data available relating to the education of talented individuals. It is in biographies that recognized national and world leaders talk about those childhood experiences which helped them serve society in unique ways, thereby raising human achievement to new heights.

The literature about accomplished adults offers several surprises. Contrary to commonly held assumptions many of our greatest contributors to society did not live near urban museums and libraries, attend large, well-equipped schools and receive special training in complex educational programs. In fact, many gifted leaders of the arts, sciences, industry and government acquired their basic knowledge in small schools and gained their childhood experiences in rural and remote towns scattered across the nation.

Such evidence is startling as we often read about the problems and scarcities of rural schools-----especially since Conant made his appeal in the 1950s for a consolidation of small schools into large union districts to provide for"economies of scale." Since Conant's day however, Americans have decided that in many enterprises bigger is not always better. Small, rural or remote schools have unique learning environments which affect the educational experiences of their students. Although many articles published about schools in sparsely populated areas focus their attention on economic scarcities, pressures on teachers and limited materials, there are also a number of distinct advantages offered to those attending school in rural areas. Small schools provide all children, including the gifted, with a unique array of opportunities to develop intellectual, social and creative capacities. These rural strengths are discussed in greater detail later in this article.

## SPECIAL NEEDS OF TALENTED STUDENTS

There is no conclusive evidence that identifies a specific set of educational needs common to all or most gifted students. Educators across most of the nation describe several categories of giftedness, including: intellectual, specific academic, creative or productive thinking, visual or performing arts, and leadership abilities. Each of these categories of giftedness represents different sets of educational needs. Even within specific categories, there is a vast span of student differences. It is difficult for even the well-endowed schools to provide significant learning opportunities that fulfill such wide-ranging needs. Many schools fall short in their attempts. Programs for gifted and talented students are often "one shot" experiences or occasional learning units, rather than a series of learning experiences on a continuum which is carefully designed to enrich and deepen the students' knowledge within a field or topic. However, it is possible for small or rural schools interested in developing appropriate instruction for gifted students to find good programs to adopt or amend.

## A "CATALOGUE" OF SPECIAL PROGRAMS FOR RURAL SCHOOLS

The Oregon Department of Education's Office of Talented and Gifted convened a special task force to investigate both the needs of gifted students and the unique realities of small, rural or remote schools. After conducting a survey involving rural teachers, administrators and parents, a set of criteria was established to guide the search for programs available to small rural schools. Based on these criteria, the Northwest Regional Educational

Laboratory was contracted to develop a "catalogue" of special programs specifically designed to help rural teachers and administrators locate programs for high ability students.

These programs offer evidence of effectiveness for talented students as well as feasibility for small, rural or remote districts in terms of affordability and implementation.

Nineteen programs were selected from a nationwide search as having the best approach for talented students in rural schools. Each of these nineteen programs is described in the following terms:

- Program Title
- Program Type: Whether the program delivers its instruction through acceleration, enrichment or regular classroom activities
- Brief Description: An overview of what the program offers
- Students Served: The type of gifted students and the grade levels with which the program has been effective
- Goals and Objectives: The formal outcomes which the program is designed to achieve
- Appropriateness for Rural Schools: How this program fits some of the unique realities of rural schools
- Why Developers Created this Program: The need or goal which the program was designed to fulfill
- Curriculum: The basic curriculum framework and focus of the program
- Instructional Strategies: The teaching models, instructional methods and teaching styles which are utilized
- Staff Roles: How individual teachers or groups of teachers need to organize in order to implement the program
- Training Needs: The amount and kind of special training which participants may need to implement the program
- Program Costs: The startup costs; the costs of training, materials and equipment, and ongoing costs of implementing the program
- Evidence of Effectiveness: The outcome measures which indicate whether gifted students achieve the program goals and objectives
- Some Snags to Avoid: Factors or situational conditions which program developers describe as needing caution



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- Services Available from the Oregon Department of Education: The economic and service support available from the Oregon Office of Talented and Gifted Education

- Services available from the Northwest Regional Educational Laboratory (NWREL): Products and services which the Laboratory has to offer school districts interested in gifted education

At the end of this article, a "spreadsheet" offers brief information regarding each program for quick overall comparison and analysis.

These models were selected because they specifically:

- Respond to the unique strengths and constraints found in small, rural and remote schools

- Focus on the classroom teacher's needs or activities

- Provide appropriate instructional materials for gifted students

- Offer schools at least one of three types of program models: acceleration, enrichment or regular classroom activities

## USING STRENGTHS OF RURAL SCHOOLS FOR SPECIAL PROGRAMS

Several studies suggest that small, rural and remote schools have many natural strengths. (Dunne, 1983; Massey and Crosby, 1983; Rosenfeld, 1983; Sher, 1983; Sher and Tompkins, 1976; Weaver, 1975; Kluempke, 1974; Stemnock, 1974; Montgomery County Public Schools, 1973; Zymelman, 1973.) These strengths, as pointed out in the chart that follows, are often the same features which best facilitate learning among talented and gifted students.

| Strengths of Rural Schools Offer These Opportunities | Implications For Gifted Education |
|---|---|
| The small school is more likely to utilize innovative teaching and open classroom situations that cut across grades. | Accelerated and individualized methodologies needed by some talented and gifted students can be accepted with less teacher resistance. |
| Rural teachers are more likely to reach out to take on administrative responsibilities in addition to their instructional duties. | Some of the time-consuming tasks required by talented and gifted programs are more likely to be assumed. |
| A "family atmosphere" often develops in which teachers create close, supportive relationships with all students and many parents. | The close, supportive relationships which exist in small, rural settings can offer excellent articulation among school, home and community learning activities. |

| Strengths of Rural Schools Offer These Opportunities | Implications For Gifted Education |
|---|---|
| The principal knows staff well and can make maximum use of individual talents. | Arrangements can be more easily made to provide responsive learning opportunities for each type of gifted student. |
| Staff members feel a part of the entire school; students are close to students on other grade levels more than in large schools. | There is more "cross age" grouping in both the informal and formal activities of the small school, providing high levels of challenge to gifted students. |
| Usually there are more professional staff available per pupil (although less per building). | Gifted students are more likely to receive special attention from a professional staff member when a special interest or project merits such attention. |

There are also some constraints in the rural context which require special attention.

| Constraints Facing Rural Schools | Implications for Gifted Education |
|---|---|
| Since funds for materials are supplied on a uniform dollar per pupil formula for all schools, there is a scarcity of professional and instructional materials and equipment. | Rural schools find it very difficult to locate or acquire specialized materials to support talented and gifted education |
| Rural specialists have to divide time among several small schools, resulting in time lost in travel. | Specialists do not have time to invest in researching and developing materials for gifted students. |
| One teacher per grade means little choice of instructional styles is available to talented and gifted students. | Rural teachers need practical, day-to-day classroom materials that help them deliver appropriate instructional style and content to talented and gifted students. |

Given both positive and negative factors inherent to the small rural school, what can rural schools offer gifted students? Several generalizations can be made:

- Small schools cannot implement gifted programs which require large funding, expensive new equipment or materials. However, there exists

in rural communities a rich source of adult supervisors who could volunteer a variety of skills and interest areas to share with gifted students.

- Small schools cannot implement change strategies which require complex, differentiated staff arrangements. However, a small, close-knit staff can team together in a variety of ways to cover several needs of gifted students.

- Small schools cannot use programs that require many types of specialists. However, rural teachers have often extended their responsibilities and exhibited dependable leadership skills. These traces can support gifted program activities.

- Small schools cannot easily pull students from regular classrooms and group them according to their unique learning needs. However, rural gifted students enjoy: 1) smaller class sizes where there is more likelihood of independent work; 2) a school climate where there is greater familiarity among teachers, students, principals and community members; and 3) a school environment where there is greater opportunity for all students to participate in extracurricular activities.

## FOCUS ON THE CLASSROOM TEACHER

Many studies have shown that school improvement is always a direct result of classroom improvement. Although schools can be affected by factors at the building and district or community level, the ultimate source and results of improvement can only be attributed to individual classroom teachers. It is the teacher who structures the learning environment, whether that environment is a regular classroom or an enriched or accelerated setting. Even programs utilizing community sites require the teacher to develop instructional strategies.

Therefore, the programs included in this catalogue have the ability to help classroom teachers with the following tasks which Peck (1982) summarized as important for teaching gifted students:

- Integrating Curriculum: Synthesizing knowledge from various fields into global interdisciplinary units of learning

- Allowing for Breadth and Precision: Providing both a wide variety of operations and an indepth, disciplined knowledge base

- Encouraging Higher Level Thinking Skills and Creative, Productive Solution Finding: Enabling gifted students to be "producers" of knowledge as well as "consumers" of knowledge as described by Renzulli

- Teaching at the Point of "Optimal Discrepancy": Where according to Piaget, learning is most effective because it is neither totally congruent with what is known nor totally incongruent

- Teaching For Transfer: Enabling gifted students to discover the patterns or structure inherent in the disciplines as described

- Encouraging New Ways of Seeing Patterns: Allowing students the perceptual openness, the inspirational and elaborative phases of creativity referred to by Rogers and Kubie

## APPROPRIATE INSTRUCTIONAL MATERIALS ARE NECESSARY

Many small, rural and isolated schools have a difficult time conducting research of the literature and developing their own materials. In addition, the literature on talented and gifted education is plagued with an abundance of advocacy and a dearth of valid, reliable research outcomes. This makes the selection of appropriate instructional materials both more difficult--and more crucial--than for other areas of instruction.

In his paper, "Principles for Curriculum Modification," Siewert (1981) noted that basic approaches to curriculum for gifted students should include:

- A fast rate of introduction of new information and concepts based on the ability of the students involved

- A high level of complexity/abstractedness of the curriculum in order to challenge the capacity of the learners to deal with advanced concepts and complex ideas

- Teaching to the highest cognitive level possible

- Teaching the students to use all thinking skills

- Teaching methods through which the gifted can learn independently

Gallagher (1975) provides three ways in which the preceding approaches can be achieved.

- Content: Curriculum can be modified both in its organization and in its degree of abstraction/complexity. For example, while an entire science class is receiving direct instruction about energy sources, advanced learners will be engaged in individual/team projects covering more complex, theoretical generalizations. Advanced learners will cross over additional disciplines as they pursue the impact of dwindling energy sources on political, economic and social structures of society.

- Presentation: How the material is taught is as important as the content of instruction itself. Generally, regular classrooms emphasize "direct instruction" which is primarily devoted to memorization and comprehension activities. Instructional materials for high ability learners should focus on higher level thinking skills and creative problem solving skills.

- The Learning Environment: High ability students are more comfortable and learn better in an environment where open-endedness, mutual decision making, group interaction and freedom of choice are emphasized. Physical placement of the gifted child may range from independent study in the regular classroom to placement in an upper grade class for a portion of the day, to grouping with other gifted students in a conference room, library or lab. High ability students have also done well when placed in out-of-school mentor or internship programs.

A fourth area requiring curriculum modification has been described by Renzulli (1976).

- Product: Gifted students possess the abilities to spend less time "consuming" knowledge and more time "producing" knowledge than other learners. The high levels of curiosity and wide interest ranges of gifted students require a curriculum which emphasizes research processes, inquiry skills and presentation methods, as well as development of strong work habits.

## THREE TYPES OF GIFTED PROGRAM MODELS

When selecting a gifted program, it is important to match the program to the types of gifted students and to the classroom realities. For these reasons, each program model has been identified according to three major categories of student learning activities:

- Effective instruction of the talented and gifted in regular classrooms
- Appropriate accelerated instruction
- Relevant enrichment of instruction

Regular classroom materials, when well selected, can offer gifted students several options for learning, such as the following:

- Independent Study
- Supplemental learning kits
- Advanced subject matter units
- In-class grouping into small study/project groups
- Advanced learning activities/projects

Accelerated instructional materials can provide a means of serving the special learning needs of very fast/developmentally mature learners with administrative arrangements such as the following.

- o Early admission
- o Ungraded primary/continuous progress
- o Double grade promotion
- o Multi-age classes
- o Tutoring
- o Correspondence courses
- o Extra classes for extra credit
- o Planned acceleration of secondary graduation processes
- o Advanced placement

Enrichment of learning experiences for high ability students in rural schools can be provided through materials that encourage greater breadth across disciplines as well as greater depth in given disciplines through activities such as the following:

- o Advanced "honors-type" classes in regular subjects
- o Special classes
- o Part-time groups in "zero hour" (before/after school or Saturdays)
- o Seminars or minicourses
- o Team teaching arrangements
- o Advanced learning packages featuring complex knowledge bases/higher level thinking skills
- o Research projects
- o Field trip/cultural events/museum formats
- o Special summer programs

Many of the model programs reviewed on the following pages offer changes in emphasis, rather than a major renovation of classroom practices. As no one element exists in isolation as the most appropriate method for gifted students, the materials must provide a balanced interplay between the advanced contents, presentation methods, learning environment and expected student

products. The span of differences between gifted students is great and the materials must offer classroom teachers adequate assistance in the individualization necessary to make the curriculum and instruction successful.

| PROGRAM TITLE | TYPE OF PROGRAM | CURRICULAR AREA(s) | STUDENTS SERVED | EVALUATION |
|---|---|---|---|---|
| Academic Excellence in the Humanities | Enrichment | Social Studies, English Career Guidance | Gr. 9-12, Gifted Students | Program Staff |
| American Studies | Enrichment, Regular Classroom | U.S. History | Gr. 11, Gifted Students and Other Learners | Program Staff |
| Computeronics | Enrichment | Computer Uses and Applications | Gr. 5-8, Gifted Students Gr. 5-12, Other Learners | JDRP (Gr. 6-7, G) |
| Project Discovery | Enrichment | Basic Skills, Personal Awareness, Social Environment | Gr. 9-12, Gifted Students and Other Learners | State Validation |
| The Fletcher Computer (FACT) | Enrichment | Computer Uses and Applications | Gr. 9-12, Gifted and Highly Motivated Students | Program Staff |
| Guidance Model for Gifted Education in a Small Rural School | Acceleration, Enrichment, Regular Classroom | Basic Skills, Arts, Leadership, Life Skills | Gr. K-12, Gifted Students and Other Learners | Program Staff |
| Individual Progress Program (IPP) | Acceleration | Basic Skills, the Arts Computer Basics | Gr. K-12, Highly Gifted Students | JDRP (Gr. 2-5, G) |
| Institute for Creative Education (ICE) | Enrichment, Regular Classroom | Basic Skills, Creative Problem Solving | Gr. K-12, Gifted Students and Other Learners | JDRP (Gr. 4-6) |
| Junior Great Books | Enrichment | Reading, Language Arts | Gr. 2-12, Students Reading at or above grade level | Program Staff Independent |
| KIDS (Kids Interest Discovery Studies Kits | Enrichment, Regular Classroom | Determined by Adopting Schools | Gr. 1-6, Gifted Students and Other Learners | JDRP (Gr. 1-6) |
| A Literature-Based Reading Program for Gifted Students | Enrichment, Regular Classroom | Reading, Language Arts | Gr. 3-9, Gifted Students and Other Learners | Program Staff Independent |
| Math Investigations | Enrichment | Mathematics | Gr. K-8, Gifted Students | Program Staff Independent |
| Philosophy for Children | Enrichment Regular Classroom | Philosophy, Reasoning | Gr. K-12, Gifted Students and Other Learners | Independent (Numerous) |
| Project SAGE | Acceleration Enrichment Regular Classroom | Basic Skills, Creative Thinking Skills | Gr. K-5, Gifted Students | JDRP (Gr. 1-5, G) |
| Social Sciencing | Enrichment | Social Sciences | Gr. 7, Gifted Students | Program Staff |
| Project Success Enrichment | Enrichment Regular Classroom | Language Arts, Art | Gr. 2-8, Gifted Students | JDRP Gr. 2-8, G) |
| Project TAG | Acceleration Enrichment | Basic Skills, Enrichment Activities | Gr. 5-8, Gifted Students and Other Learners | Program Staff Independent |
| Think Shop | Enrichment | Reasoning, Decision Making and Research Skills | Gr. 3-5, Gifted Students | Program Staff Independent |

[1]Dependent on whether schools contract for optional training

[2]Dependent on whether schools have necessary computer hardware

| STAFFING NEEDS | TRAINING | COSTS |
|---|---|---|
| Individual Teachers or teaching team | Optional | Low-Medium[1] |
| English Teacher(s) Social Studies Teacher(s) | Optional | Low-Medium[1] |
| Trained Teacher(s) | Training Required Followup Optional | High |
| Co-directors (s) Teachers Community Members | Optional, Recommended | Medium-High[1] |
| Teacher(s) | Optional | Medium-High[2] |
| Guidance Counselor Teachers) | Optional | Low-Medium[1] |
| Trained Administrator and Teacher(s) | Initial and Followup Training Required | High |
| Trained Teacher(s) | Training Required Followup Optional | High |
| Trained Teacher(s) and/or Trained Adult Volunteers | Basic Training Required Advanced Training Optional | High |
| Coordinator(s) Teacher(s) | Training Required for Coordinator(s) | High |
| Teacher(s) | Optional | Low-Medium[1] |
| Teacher(s) | Optional | Low-Medium[1] |
| Teacher(s) | Optional, Recommended | High |
| Consultant/Director Teacher(s) | Optional, Recommended | Medium-High[1] |
| Teacher(S) | Optional | Low-Medium[1] |
| Teacher/Coordinator Teacher(s) | Required for Principal, Coordinator, Teacher(s) | High |
| Director, Teachers Community Members | Optional | Medium-High[1] |
| Teachers | Training Required | High |

BIBLIOGRAPHY

American Association of School Administrators. Insuring Excellence in Rural Schools. Arlington, Va.

Baldwin, Alexinia, and Judith Wooster. Baldwin Identification Matrix for the Identification of Gifted & Talented Students. Buffalo, NY: D.O.K. Publishers, Inc., 1977.

Bennis, W.G. et.al. (eds.) Planning of Change. 3rd Edition. Holt, Rinehart and Winston, 1976.

Berman, P. and M. McLaughlin. Federal Programs Supporting Educational Change, Vol. IV. Santa Monica (Rand Corporation), 1975.

Birnbaum, Martin and others. Ideas for Urban/Rural, Gifted/Talented, (Case Histories and Program Plans). Ventura, California: Ventura County Superintendent of Schools Office.

Catmull, Joan. Alternative Programming for the Gifted. Tallahassee, Florida: Department of Education.

Dunne, Faith and W. Carlson. "Small Rural Schools in the United States: A Statistical Profile," unpublished paper, Small Schools Project, Department of Education, Dartmouth College, Hanover, NH, 1981

Edelfelt, Roy A. "Six Years of Progress in Inservice Education." Journal of Research and Development in Education, Vol. 14, N. 2, Winter, 1981.

Emrick, J. and S. Peterson. "A Synthesis of Findings Across Five Recent Studies of Educational Dissemination and Change." San Francisco, Far West Laboratory, 1977.

Gall, Meredith D. "Using Staff Development to Improve Schools." R&D Perspectives. CEPM, Eugene, Oregon, 1983.

Gallagher, James J. Teaching the Gifted Child. 2nd ed., Boston: Allyn and Bacon, Inc., 1975.

Hall, Gene and Susan Loucks. "Teacher Comments as a Basis for Facilitating and Personalizing Staff Development," Teachers College Record, V. 80, n.1. (September 1978).

Hutson, Harry. "Inservice Best Practices: The Learning of General Education." National Inservice Network, Indiana University, February 1979.

Isaacson, Nancy. "Adult Learning" unpublished symposium paper, Lewis & Clark College, 1983

Kaplan, Sandra N. Providing Programs for the Gifted and Talented: A Handbook. Ventura, California: Office of the Ventura County Superintendent of Schools, 1974.

Little, Judith Warren. "School Success and Staff Development: A Summary of Recently Completed Research," Boulder, Colorado, Center for Action Research, Inc., 1981.

Litwin, George. "Adult Learning Principles." State of Learning Theory Conference, Chicago, IL, 1979.

Loucks, Susan and H. Pratt. "Effective Curriculum Change Through a Concerns-Based Approach to Planning and Staff Development," Educational Leadership, 37, 3 (December 1979).

Maker, C.J. Training Teachers for the Gifted and Talented: A Comparison of Models. C.E.C., Reston, VA, 1975.

Martinson, Ruth A. The Identification of the Gifted and Talented. Reston, VA: The Council for Exceptional Children, 1975.

Nachtigal, Paul, ed. Rural Education: In Search of a Better Way. Westview Press, Boulder, CO, 1982.

Nelson, Murray. "Teacher Education for Rural Schooling--A Status Report," Research in Rural Education, Winter, 1983.

Peck, June. "Possible Teaching Methods for the Gifted." WESTCO Manual. Northwest Clearinghouse for Gifted Education, Seattle, WA, 1982.

Raths, Louis E. Teaching for Thinking: Theory and Application. Charles E. Merrill Publishing Co., Columbus, OH.

Renzulli, Joseph S. The Enrichment Triad Model: a guide for developing defensible programs for the gifted and talented. Creative Learning Press, Mansfield Center, CT.

Rural Teacher Training Program. Provo, UT: Brigham Young University, 1975.

Shalway, Linda. "'Good News' Schools Share Common Characteristics," Educational R&D Report, V. 4, n. 2 (Summer 1981).

Siewert, Robert. "Curriculum for High Ability Learners." WESTCO Manual: Programs for Gifted Education. Northwest Clearinghouse for Gifted Education, Seattle, WA, 1982.

U.S. Government Printing Office. Small Community and Rural Policy Development, 1979.